

QY 898 SPARLAYQDKGVLHNEVKVSVILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYYNIDV 957
| | | | |
Db 1321 SPARLAYQDKGVLHNEVKVSVILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYYNIDV 1380

QY 958 PSRTARAITTRSGQTLKSVWYNCP 981
| | | | |
Db 1381 PSRTARAITTRSGQTLKSVWYNCP 1404

RESULT 7
AAB29773
ID AAB29773 standard; protein; 1404 AA.
XX
AC AAB29773;
XX
DT 15-JUN-2007 (revised)
DT 28-FEB-2001 (first entry)
XX
DE Human megakaryocyte stimulating factor (MSF), SEQ ID NO:1.
XX
KW Human MSF; megakaryocyte stimulating factor; tribonectin;
KW alternative splicing; joint boundary lubricant; O-linked oligosaccharide;
KW osteoarthritis; tribosupplementation; tissue adhesion inhibition;
KW friction coefficient reduction; gene therapy; antiarthritic; osteopathic;
KW BOND_PC; megakaryocyte stimulating factor; MSF;
KW megakaryocyte stimulating factor MSF [Homo sapiens]; G05203; G05615;
KW G08283.
XX
OS Homo sapiens.
XX
PN WO200064930-A2.
XX
PD 02-NOV-2000.
XX
PF 24-APR-2000; 2000WO-US010953.
XX
PR 23-APR-1999; 99US-00298970.
XX
PA (RHOD-) RHODE ISLAND HOSPITAL LIFESPAN PARTNER.
XX
PI Jay GD;
XX
DR WPI; 2001-024673/03.
DR N-PSDB; AAC81498.
DR PC:NCBI; gil572721.
DR PC:SWISSPROT; Q92954.
XX
PT Novel tribonectin polypeptide useful as lubricant for treating
PT osteoarthritis, comprises O-linked lubricating moiety.
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PS Claim 3; Page 7; 47pp; English.
XX
CC The invention relates to a human tribonectin which is a product of
CC alternative splicing of the human MSF (megakaryocyte stimulating factor)
CC gene. The tribonectin has at least one O-linked oligosaccharide
CC lubricating moiety and has a polypeptide sequence comprising 1-76 repeats
CC of a motif having at least 50% identity to the sequence KEPAPTT
CC (AAB29774). The invention also relates to a nucleic acid encoding a human
CC MSF-derived tribonectin; a biocompatible composition comprising a human
CC tribonectin for inhibiting tissue adhesion formation; and a method of
CC diagnosing osteoarthritis or a predisposition to osteoarthritis by
CC measuring the amount of MSF or its fragment in a biological sample of a
CC mammal, wherein an increased amount of MSF compared to a control
CC indicates the presence of or predisposition to developing osteoarthritis.
CC The tribonectin and DNA encoding it are useful in the treatment of
CC osteoarthritis, where they may be used for lubricating mammalian joints,
CC such as articulating joints of humans, dogs or horses. The tribonectin,
CC when formulated as a membrane, foam, gel or fibre, is useful for
CC inhibiting adhesion between two surfaces such as the injured tissues of a
CC mammal, where the injury is caused by a surgical insertion or trauma, or
CC an artificial device e.g., an orthopaedic implant. In particular, one of
CC the surfaces is pericardial tissue. DNA encoding a tribonectin may be
CC used in gene therapy. The present sequence represents human MSF
CC
CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed
CC information from BOND.
XX
SQ Sequence 1404 AA;

Query Match 95.8%; Score 4991.5; DB 4; Length 1404;
Best Local Similarity 69.9%; Pred. No. 3.7e-252;
Matches 981; Conservative 0; Mismatches 0; Indels 423; Gaps 1;

QY 1 MAWKTLPIYLLLLSVFVIQQVSSQDLSSCAGRCGEGYSRDATCNCQHYMECCPDF 60
| | | | |
Db 1 MAWKTLPIYLLLLSVFVIQQVSSQDLSSCAGRCGEGYSRDATCNCQHYMECCPDF 60

QY 61 KRVCTAELSCKGRCPESFERGRECDCAQCKKYDKCCPDYESFCAEVHNPTSPPSSKKAP 120
| | | | |
Db 61 KRVCTAELSCKGRCPESFERGRECDCAQCKKYDKCCPDYESFCAEVHNPTSPPSSKKAP 120

QY 121 PPSGASQTIKSTTKRSPKPPNKKTKKVIESEEITEHVSSENQESSSSSSSSSSSTIW 180
| | | | |
Db 121 PPSGASQTIKSTTKRSPKPPNKKTKKVIESEEITEHVSSENQESSSSSSSSSSSTIW 180

QY 181 KIKSSKNSAANRELQKKLVKDNKKNRKKKPTPKPPVDEAGSGLDNGDFKVTTPDTST 240

please scan
search notes

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Db      181  KIKSSKNSAANRELQKKLVKDNKKNRTKKKPTPKPPVVDEAGSGLDNGDFKVTTPDTST 240
Qy      241  TQHNKVSTSPKITTAKPINRPSLPPNSDTSKETSMTVNKETTVEKETTITNKQSTSDG 300
Db      241  TQHNKVSTSPKITTAKPINRPSLPPNSDTSKETSMTVNKETTVEKETTITNKQSTSDG 300
Qy      301  KEKTTSAKETQSIIEKTSKADLAPTSKVLAKPTPKAETTTKGPALITTPKEPTPTTPKEPAS 360
Db      301  KEKTTSAKETQSIIEKTSKADLAPTSKVLAKPTPKAETTTKGPALITTPKEPTPTTPKEPAS 360
Qy      361  TTPKEPTPTTIKSAPTTPKEPAPTTTKSAPTTPKEPAPTTTKEPAPTTTPKEPAPTTT--- 417
Db      361  TTPKEPTPTTIKSAPTTPKEPAPTTTKSAPTTPKEPAPTTTKEPAPTTTPKEPAPTTTKEP 420
Qy      418  ----- 417
Db      421  APTTTKSAPTTPKEPAPTTPKKPAPTTTPKEPAPTTTPKEPTPTTPKEPAPTTTPKEPAPTTPK 480
Qy      418  ----- 417
Db      481  EPAPTAPKKPAPTTTPKEPAPTTTPKEPAPTTTKEPSPTTPKEPAPTTTKSAPTTPKEPAPT 540
Qy      418  ----- 417
Db      541  TTKSAPTTPKEPSPTTPKEPAPTTTPKEPAPTTPKKPAPTTTPKEPAPTTTPKEPAPTTTKKP 600
Qy      418  ----- 417
Db      601  APTAPKEPAPTTTPKETAPTTPKKLTPTTPEKLAPTTPEKPAPTTPEELAPTTPEEPTPTT 660
Qy      418  ----- 417
Db      661  PEEPAPTTPKAAAPNTPKAPAPTTTPKEPAPTTTPKEPAPTTTPKETAPTTPKGTAPTTLKEP 720
Qy      418  ----- 417
Db      721  APTTPKKPAPKELAPTTTKEPTSTTSKDPAPTTTPKGTAPTTPKEPAPTTTPKEPAPTTPKG 780
Qy      418  ----- 417
Db      781  TAPTTLKEPAPTTPKKPAPKELAPTTTKGPTSTTSKDPAPTTTPKETAPTTPKEPAPTTPK 840
Qy      418  KPAPTTTPETPPPTTSEVSTPTTTKEPTTIHKSPESTPELSAETPKALENSPKPEGVPT 477
Db      841  KPAPTTTPETPPPTTSEVSTPTTTKEPTTIHKSPESTPELSAETPKALENSPKPEGVPT 900
Qy      478  TKTPAATKPEMTTAKDKTTERDLRTTPETTTAAPKMTKETATTTEKTTESKITATTTQV 537
Db      901  TKTPAATKPEMTTAKDKTTERDLRTTPETTTAAPKMTKETATTTEKTTESKITATTTQV 960
Qy      538  TSTTTQDTTPFKITTLKTTTLAPKVTTTKKTTTTEIMNKPEETAKPKDRATNSKATTPK 597
Db      961  TSTTTQDTTPFKITTLKTTTLAPKVTTTKKTTTTEIMNKPEETAKPKDRATNSKATTPK 1020
Qy      598  PQKPTKAPKKPTSTKKPKTMPRVKPKTTPTPRKMTSTMPELNPTSRIAEAMLQTTTRPN 657
Db      1021  PQKPTKAPKKPTSTKKPKTMPRVKPKTTPTPRKMTSTMPELNPTSRIAEAMLQTTTRPN 1080
Qy      658  QTPNSKLVEVNPKSEDAGGAETPHMLLRPHVFMPEVTPDMDYLPRVFNQGIINPMLS 717
Db      1081  QTPNSKLVEVNPKSEDAGGAETPHMLLRPHVFMPEVTPDMDYLPRVFNQGIINPMLS 1140
Qy      718  DETNICNGKPVGLTTLRNGTLVAFRGHYFWMLSPFSPSPARRITEVWGIPSPIDTVFT 777
Db      1141  DETNICNGKPVGLTTLRNGTLVAFRGHYFWMLSPFSPSPARRITEVWGIPSPIDTVFT 1200
Qy      778  RCNCEGKTFPPKDSQYWRFTNDIKDAGYKPIFKGFGGLTGQIVAALSTAKYKNWPESVY 837
Db      1201  RCNCEGKTFPPKDSQYWRFTNDIKDAGYKPIFKGFGGLTGQIVAALSTAKYKNWPESVY 1260
Qy      838  FFKRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGEMTQVRRRRFERAIGPSQHTIRIQY 897
Db      1261  FFKRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGEMTQVRRRRFERAIGPSQHTIRIQY 1320
Qy      898  SPARLAYQDKGVLHNEVKVSIILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYNNIDV 957
Db      1321  SPARLAYQDKGVLHNEVKVSIILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYNNIDV 1380
Qy      958  PSRTARAITTRSGQTLISKVWYNCP 981
Db      1381  PSRTARAITTRSGQTLISKVWYNCP 1404

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RESULT 8

AAB60568

ID AAB60568 standard; protein; 1404 AA.

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AC AAB60568;

XX

DT 15-JUN-2007 (revised)

DT 27-APR-2001 (first entry)

XX

DE Human megakaryocyte stimulating factor (MSF, CACP).

XX

KW Human; CACP protein; camptodactyly-arthropathy-coxa vara-pericarditis;

KW MSF; megakaryocyte stimulating factor; synovial lubricant;